

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael R. Steel on 9/15/2010.

The application has been amended as follows:

- Claims 51 – 54 have been canceled.

51 – 54. (Canceled)

- Claims 70 – 71 have been canceled.

70 – 71. (Canceled)

- Claim 73 has been amended as following:

73. (Currently Amended) A non-transitory computer readable medium storing computer executable instructions, which when being executed by a processing unit, perform ~~for performing~~ the method of claim 72.

- Claim 77 has been amended as following:

77. (Currently Amended) A non-transitory computer readable medium storing computer executable instructions, which when being executed by a processing unit perform ~~for performing~~ the method of claim 74.

- Claim 81 has been amended as following:

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81. (Currently Amended) A non-transitory computer readable medium storing computer executable instructions, which when executed by a processing unit, perform ~~for performing~~ the method of claim 79.

3. The following is an examiner's statement of reasons for allowance:

The prior art made of record, in single or in combination, fails to disclose explicitly the limitations of:

"wherein said entry point and said exit point are separated by a first data structure length; and wherein said first data structure length has a predetermined minimum value when a set of parameters of said sequential sets of parameters is read from said exit point, wherein said predetermined minimum value is defined in terms of a plural number of said sets of parameters and/or in terms of a time between writing of one of said sets of parameters into said first data structure at said entry point of said first FIFO data structure and reading of a set of parameters of said sequential sets of parameters from said exit point of said first data structure, said time sufficient to write sets of parameters successively into said first FIFO data structure." as disclosed in claim 42.

"at least one first listener attached to said first region of said data pipe; at least one second listener attached to said second region of said data pipe; and wherein said at least one first listener is configured to read input data from said data pipe and to write first listener output data determined from said input data back to said data pipe, wherein at least some of said first listener output data is not valid until after a delay greater than a time sufficient to write data successively into said data pipe; wherein said at least one second listener is configured to read second listener input data including said first listener output data from said data pipe, and to provide output data determined from said read second listener input data; and wherein a start of said second region of said data pipe is earlier than a start of said first region of said data pipe by at least said delay." as disclosed in Claim 55.

“receiving message parameter data at an input of a first FIFO module from said stream of messages and said first FIFO module having an output; coupling an input of a second FIFO module to said output of said first FIFO module; and wherein said message stream has a variable rate and wherein said first FIFO module is configured to guarantee a time delay between said first FIFO input and said first FIFO output of at least a minimum value greater than a time sufficient to write message parameter data successively into said first FIFO module.” as disclosed in claim 63.

“receiving message parameter data at an input of a first FIFO module from said stream of messages and said first FIFO module having an output; coupling an input of a second data processing module, in particular a FIFO module, to said first FIFO module output; coupling a data culling module between said first FIFO output and said second data processing module input; and selectively culling data at said data culling module to reduce a rate of data processed by said second data processing module compared with said first FIFO module.” as disclosed in claim 67.

“determining a set of data processing modules required to provide said required parameter set, one or more of said modules having a minimum required time for a valid output, others of said modules being dependent upon said valid output; and positioning said data processing modules on said data storage structure to define a structure in which said at least one FIFO of said FIFO structures with a guaranteed minimum length is defined by a module of said one or more data processing modules with a minimum output validation time, and a subsequent series coupled FIFO is defined by a module of said one or more data processing modules dependent upon said valid output, wherein said at least one FIFO has said guaranteed minimum length when a parameter set is output from said at least one FIFO to said subsequent series coupled FIFO, said guaranteed minimum length being defined in terms of a plural number of said sets of parameters and/or in terms of a time sufficient to write sets of parameters successively into said at least one FIFO.” as disclosed in claim 72.

“discriminating between communications sessions to associate said current message with a communications session of the plurality of communications sessions to which the current message belongs; writing a set of parameters from the current

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message into a FIFO data structure identifying the communications session of the plurality of communications sessions to which the message belongs; and updating a last value data store associated with the communications session of the plurality of communications sessions with parameters of a previous message of the session in response to said associating said current message with the communications session of the plurality of communications sessions, wherein a communications session of the plurality of communications session is a thread of messages having at least one network entity in common and said discriminating is performed on the basis of information in said current message for linking the current message into said thread.” as disclosed in claim 74.

“sequentially storing said messages in a buffer module; associating said message at a discriminator module with a communications session of said plurality of communications sessions; and storing, at a bucket module, a most recent previous value for one or more of said message parameters for each of a plurality of said communications sessions in response to said discriminator module, wherein said communications session of said plurality of communications sessions is a thread of messages having at least one network entity in common and said discriminating is performed on the basis of information in said message for linking the message into said thread.” as disclosed in claim 78.

“storing, for each said session or entity, a most recent previous value for a parameter set comprising one or more of said parameters; determining, for a current message, a communications session or entity to which the message belongs, on the basis of information in said current message for linking the current message into said thread; determining one or more current parameter values from said current message; updating a state model for said communications session or entity to which the message belongs using said one or more current values and said most recent previous parameter set value for said communications session or entity; updating said most recent previous value parameter set using said one or more current parameter values; and repeating said determining and updating to model said plurality of communications sessions or network

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entities using a parallel bank of said state models, one for each said session or entity.” as disclosed in claim 79.

4. Additionally, all of the further limitations in claims 43 – 50, 56 - 61, 64 - 66, 68 - 69, 75 - 76, 80 are allowable, since the claims are dependent upon independent claims, respectively.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
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/Ayaz R. Sheikh/
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